

Notice of Allowability

Application No.

09/964,459

Examiner

McDieunel Marc

Applicant(s)

JINNO, MAKOTO

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/28/2004.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

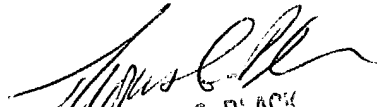
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 04/13200.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3600

Allowable Subject Matter

1. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figs. 25-27 should be labeled prior art. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

2. Claims 1-8 are allowed.

3. The following is an examiner's statement of reasons for allowance:

While the prior art of record (Mack, Lee *et al.*, Bate *et al.*, Mahani *et al.*, and Ohtsuki, for example) teaches. However, the prior art of record fail to teach with respect to claim 1, a manipulator comprising an operation command unit provided with an attitude adjusting unit and an end effector control unit; a connecting unit having one end connected to the operation command unit; a working unit connected to the other end of the connecting unit and provided with an end effector and a support unit supporting the end effector for motions in at least two degrees of freedom of motion; and a control unit that transmits an operation command provided by the attitude adjusting unit to the support unit to adjust the attitude of the end effector and transmits an operation command provided by the end effector control unit to the end effector to operate the end effector; wherein the support unit includes a first joint capable of turning about a first axis perpendicular to a center axis of the connecting unit, and a second joint capable of

turning about a second axis perpendicular to the first axis, the end effector has a center axis substantially parallel to the second axis, the attitude adjusting unit includes a third joint capable of turning about a third axis perpendicular to the center axis of the connecting unit and a fourth joint capable of turning about a fourth axis perpendicular to the third axis, and the end effector control unit is provided to be gripped by fingers extending substantially in parallel to the fourth axis. With respect to claim 7, a manipulator comprising a working unit provided with an end effector and a support unit supporting the end effector for motions in at least two degrees of freedom of motion; wherein the support unit includes a first joint capable of turning about a first axis, and a second joint capable of turning about a second axis perpendicular to the first axis, wherein the working unit has two working joints mounted on the second joint, the two working joints being capable of turning about the second axis, the two working joints are rotated in the same direction to rotate the second joint, and the two working joints are rotated in opposite directions, respectively, to drive the end effector for gripping and releasing in combination with the other features of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (703) 305-4478. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

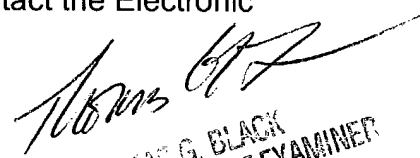
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


McDieunel Marc

Tuesday, April 13, 2004

MM/


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
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Supervisor, Thomas Black